Wisconsin Department of Transportation
Policy Research Program

Evaluation of Impacts of Allowing Heavier Log Loads in Northern Wisconsin during Spring Thaw

Issued April 20, 2011

Proposal Deadline

Proposals must be submitted electronically to the E-mail address noted below in PDF format no later than 5:00 p.m. Central Time on May 31, 2011

For more information regarding this RFP contact the WisDOT Research & Library Unit at research@dot.wi.gov.

I. Definitions

The following definitions are used throughout the RFP:

Contractor means proposer awarded the contract.

Proposer/Vendor means a company or individual submitting a proposal in response to this RFP.

Project Oversight Committee (POC) includes the representatives from WisDOT and those designated by WisDOT to provide project guidance.

II. Background and Problem Statement

The Wisconsin Department of Transportation (WisDOT) through its Policy Research Program is implementing a research project on "Evaluation of Impacts of Allowing Heavier Log Loads in Northern Wisconsin during Spring Thaw."

January 1, 2011, revisions to s.348.27(9m)4, Wis. Stats., allow vehicle combinations up to 98,000 pounds using 6 axles to transport loads of raw forest products during the spring-thaw suspension period.

Prior to the law change, the WisDOT could suspend oversize/overweight permits for the transportation of raw forest products during the spring thaw, or impose special weight limits on highways.

III. Objectives

The objectives of this study are to determine the impacts, if any, this change has on the rate of asphalt pavement deterioration and overall pavement performance. At this time, there is no information or data available for the impact of these changes on pavement life or the adverse conditions that may result due to heavier loads during spring thaw. Objectives of the study include:

- How do these revisions affect pavement life?
- Are there vehicle classes/categories that are more damaging than others? Is it possible to lessen the impact of these heavy loads?
- Are their certain pavements that will be impacted more (by increased loads) due to this change in policy? Is there a way for the department to identify key destinations/sources of the raw forest products?
- Are there certain pavement structures that are more susceptible to damage due to increased loading?
- Are there tools available to help us better forecast these impacts?

IV. Scope of Work (Tasks)

This project consists of the following three tasks.

Task 1: Research Synthesis. Conduct a research synthesis of the states that allow for higher weight loads. The report will include a summary of other states' practices and if other states allow higher loads, what tools or mechanisms do they use to predict and prevent pavement damage?

Task 2: Data Collection. Data collection will be for one year (12 consecutive months). This will include automated data collection as well as observed-data collection. The researcher and the department will collaboratively choose which highway(s) should be reviewed.

Data collected will include:

a. AADT
b. Truck counts and percentages of AADT
c. Number of logging trucks included in (2)
d. Number of loads greater than the normally allowed load capacity
e. Vehicle count by classification and axle loads
f. Identification of which way the loads are moving

During Task 1, the research and department will collaboratively choose which highway(s) should be reviewed in Task 2.

Task 3: Analyze the Data; Assess the Impact; and Develop Recommendations.

V. Project Requirements (Specific Results and Deliverables)

1. Quarterly Progress Reports

The Contractor must provide brief written reports of progress to the POC at the end of each quarter of the year (March 31, June 30, September 30, and December 31) for the duration of the contract using WisDOT's quarterly report template.

2. Task Update Conference

After completion of each of Task~~s~~ 1 & 2, the Contractor will submit the draft results of the Task and meet with the committee, in person or by teleconference to discuss the findings, the remaining steps of the project and any outstanding barriers, concerns, or questions that need to be addressed prior to proceeding.

3. Draft Final Report and Presentation

- The Contractor will provide a draft final report of work completed 2 months before the end of the project. This report will include an executive summary of the study findings and analysis (Tasks 1 and 2); and the recommendations (Task 3). The WisDOT POC will review the final report and request any changes.
- The contractor will present research results to the entire POC.

4. Final Report and Implementation Plan

The Contractor will provide a final report WisDOT in electronic format and 15 printed copies. The Contractor will collaborate with WisDOT to ensure that it uses the appropriate cover and technical documentation page. The Contractor will also deliver a brief study abstract on the report's Technical Documentation Page and a brief Implementation Plan using a form provided by WisDOT, which outlines potential steps WisDOT could take to implement the study results.

VI. Budget and Time Frame

1. Project Duration

The contract shall be effective on the date indicated in the contract and shall continue for 24 months from that date.

2. Project Budget

- Proposals cannot exceed $125,000. Any proposal that exceeds this amount will be considered non-responsive to the RFP requirements and will not be accepted.
- The researcher is expected to submit the draft final report with quality technical writing and proper grammar. It is acceptable to include a technical editor on the research team to ensure these requirements are met.

VII. Implementation

1. WisDOT intends to use the results of this project to develop a preventative maintenance strategy to preserve the pavement due to these legislative changes.
2. Researcher is expected to communicate changes to the following:
   a. Recommended potential changes in practice
   b. Complete a Benefit/Cost Analysis of this rule